

Docket No. AB-367U

Amendments to and Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-19 (canceled)

Claim 20 (new): In a cochlear implant system having a sound processor and multiple electrode contacts through which stimuli are adapted to be applied to a patient's inner ear, a method of "fitting" the cochlear implant system to the patient, comprising:

identifying multiple groups of the electrode contacts;

applying electrical stimuli to all of the electrode contacts of select groups of the electrode contacts and monitoring stapedial reflexes of the patient such that temporal and spatial integration during live speech are accounted for and the accuracy of predicting live speech comfort levels is increased; and

using the stapedial reflexes to control the intensity of electrical stimuli thereafter applied through the electrode contacts by the cochlear implant system.

Claim 21 (new): The method of claim 20, further including:

forming a contour of intensity levels associated with all of the select groups of electrode contacts at which a reflex criteria of the stapedial reflex responsive to the delivered electrical stimuli is first observed.

Claim 22 (new): The method of claim 20, wherein applying electrical stimuli includes applying pulse trains of electrical stimuli with selectable degrees of intensity.

Claim 23 (new): The method of claim 22, further including modulating the amplitude of the pulse trains of electrical stimuli.

Claim 24 (new): The method of claim 20, wherein applying electrical stimuli includes applying an amplitude modulated pulse train at a known intensity level and having a rate of at least 2 kHz.

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Claim 25 (new): The method of claim 22, wherein the pulse trains of electrical stimuli are derived from shaped bands of noise whose overall bandwidth is adjustable.

Claim 26 (new): The method of claim 22, wherein the pulse trains of electrical stimuli are derived from modulated bands of noise whose center frequencies are adjustable.

Claim 27 (new): The method of claim 22, wherein the pulse trains of electrical stimuli are derived from complex tonal stimuli whose spectra and various amplitude components are adjustable.

Claim 28 (new): The method of claim 22, wherein the pulse trains of electrical stimuli are derived from speech tokens whose spectra and amplitude envelopes are well described.

Claim 29 (new): The method of claim 22, wherein the pulse trains of electrical stimuli are derived from white noise.

Claim 30 (new): In a cochlear implant system having a sound processor and multiple electrode contacts through which stimuli are adapted to be applied to a patient's inner ear, a method of "fitting" the cochlear implant system to the patient, comprising:

identifying multiple bands of the electrode contacts, each band including three or more adjacent electrode contacts;

applying electrical stimuli to all of the electrode contacts of select bands of the electrode contacts and monitoring stapedial reflexes of the patient; and

using the stapedial reflexes to control the intensity of electrical stimuli thereafter applied through the electrode contacts by the cochlear implant system.

Claim 31 (new): The method of claim 30, further including:

forming a contour of intensity levels associated with all of the select bands of electrode contacts at which a reflex criteria of the stapedial reflex responsive to the delivered electrical stimuli is first observed.

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Claim 32 (new): The method of claim 30, wherein applying electrical stimuli includes applying pulse trains of electrical stimuli with selectable degrees of intensity.

Claim 33 (new): The method of claim 32, further including modulating the amplitude of the pulse trains of electrical stimuli.

Claim 34 (new): The method of claim 30, wherein applying electrical stimuli includes applying an amplitude modulated pulse train at a known intensity level and having a rate of at least 2 kHz.

Claim 35 (new): The method of claim 32, wherein the pulse trains of electrical stimuli are derived from shaped bands of noise whose overall bandwidth is adjustable.

Claim 36 (new): The method of claim 32, wherein the pulse trains of electrical stimuli are derived from modulated bands of noise whose center frequencies are adjustable.

Claim 37 (new): The method of claim 32, wherein the pulse trains of electrical stimuli are derived from complex tonal stimuli whose spectra and various amplitude components are adjustable.

Claim 38 (new): The method of claim 32, wherein the pulse trains of electrical stimuli are derived from speech tokens whose spectra and amplitude envelopes are well described.

Claim 39 (new): The method of claim 32, wherein the pulse trains of electrical stimuli are derived from white noise.